FIG. 1 (PRIOR ART)

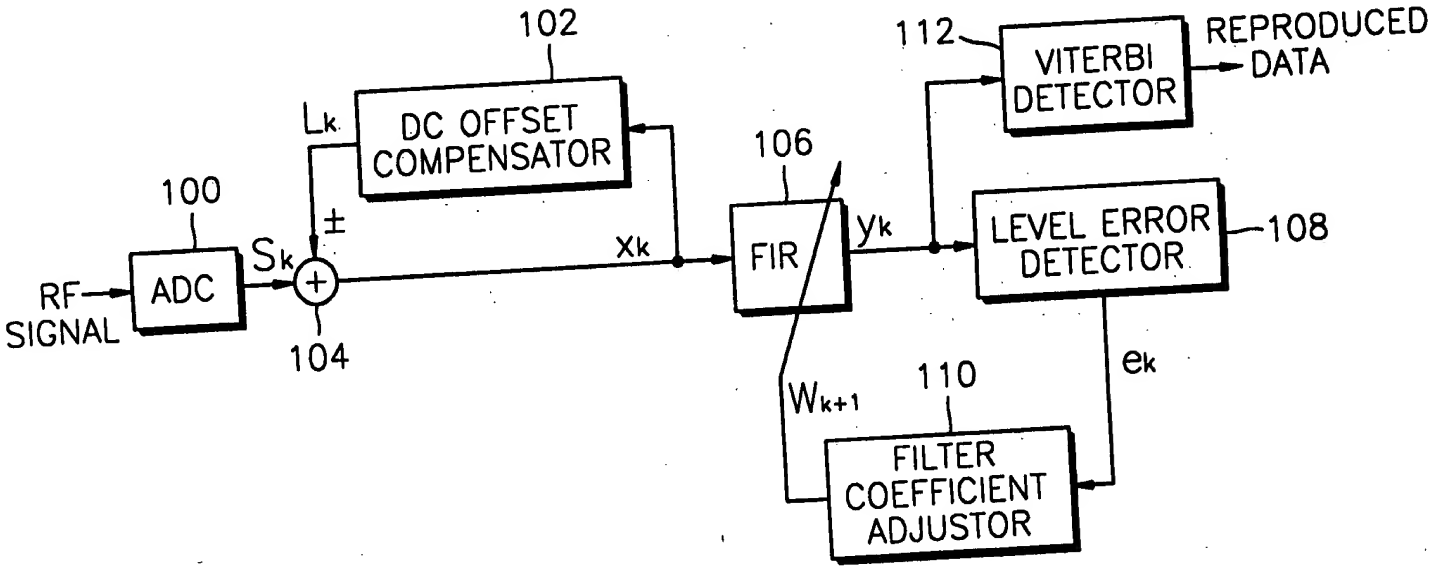


FIG. 2

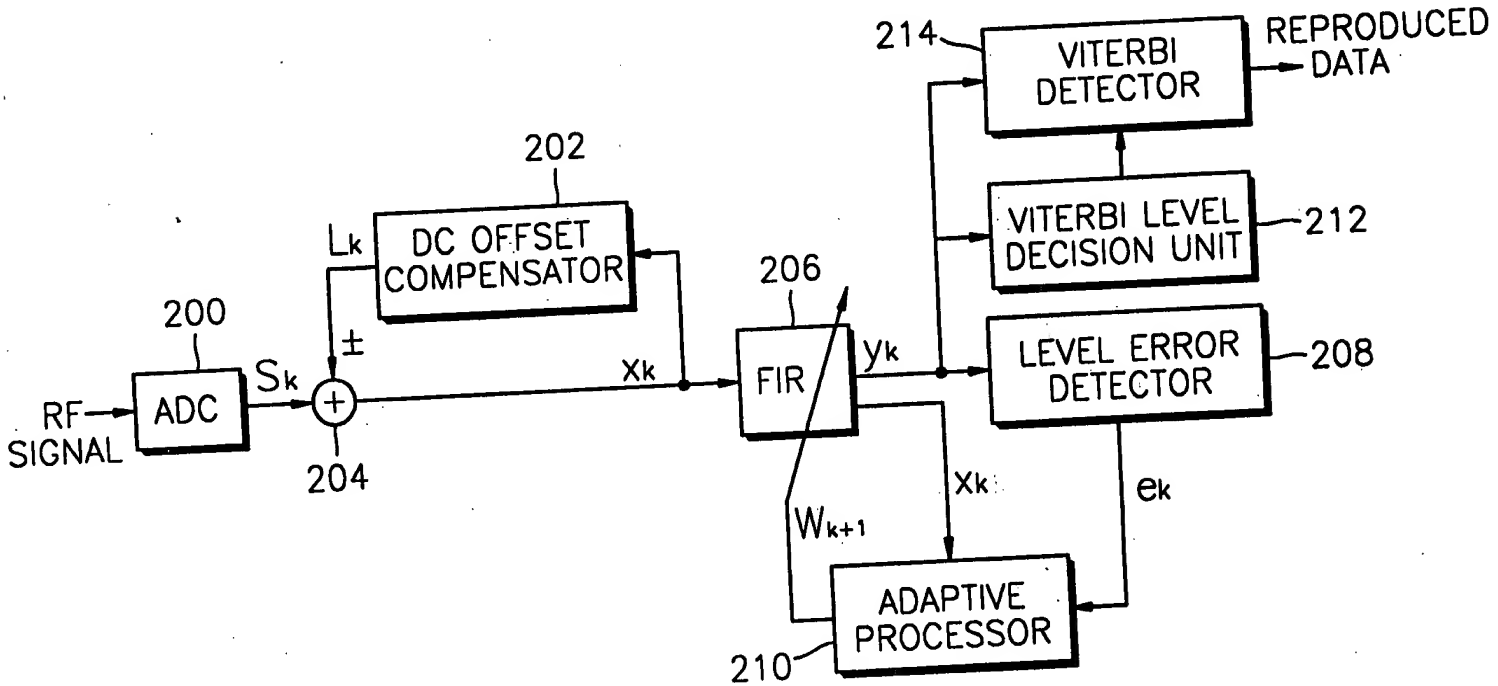


FIG. 3

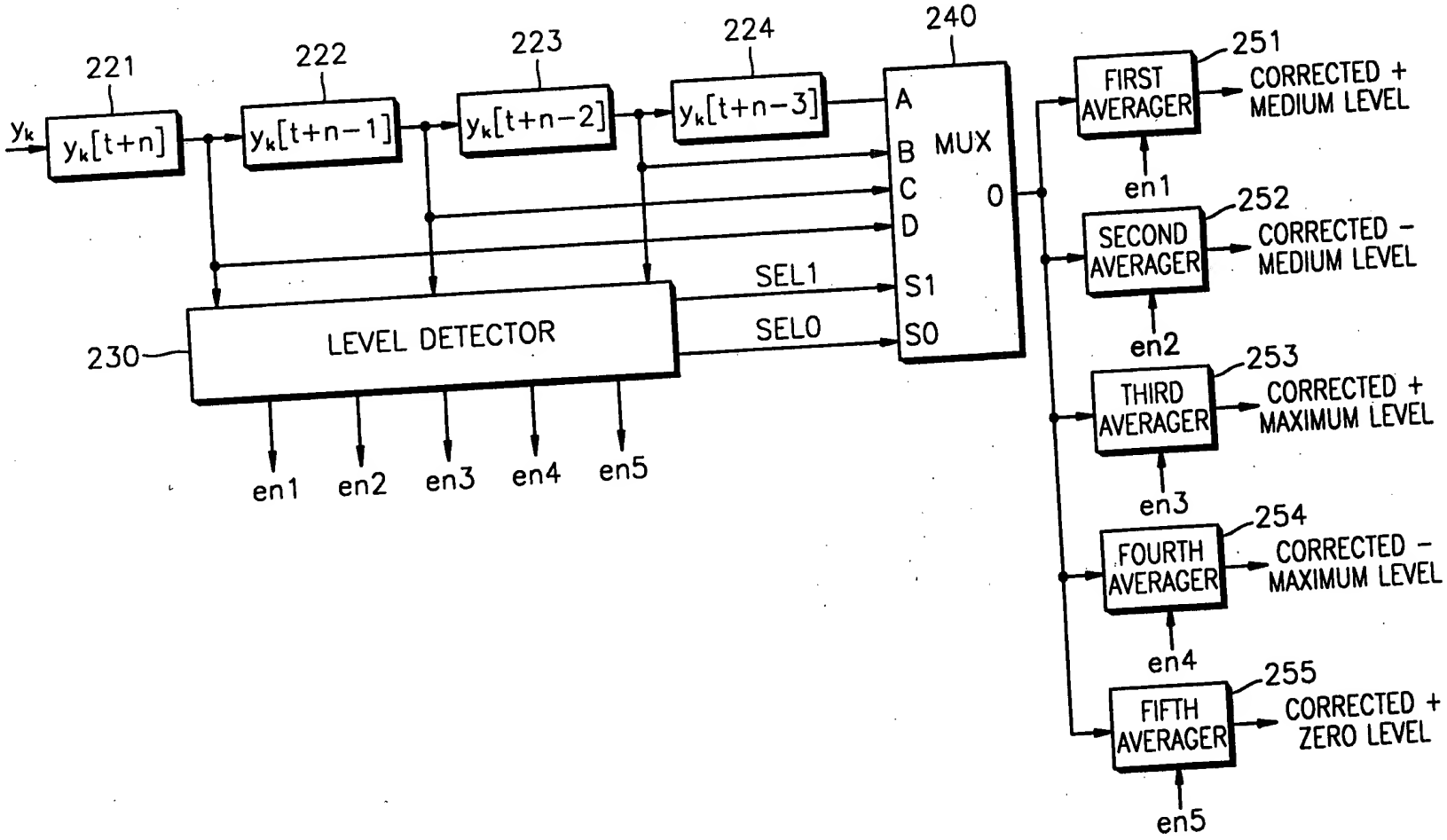


FIG. 4

CONDITIONS	+MID LEVEL ENABLE	−MID LEVEL ENABLE	+MAX LEVEL ENABLE	−MAX LEVEL ENABLE	ZERO LEVEL ENABLE	SEL1	SEL0	OUTPUT OF MUX
$y_k[t+n-1] * y_k[t+n]<0$ AND $y_k[t+n-1]>0$	ENABLE	DISABLE	DISABLE	DISABLE	DISABLE	0	1	$y_k[t+n-1]$
	DISABLE	ENABLE	DISABLE	DISABLE	DISABLE	0	0	$y_k[t+n]$
$y_k[t+n-1] * y_k[t+n]<0$ AND $y_k[t+n-1]\leq 0$	ENABLE	DISABLE	DISABLE	DISABLE	DISABLE	0	0	$y_k[t+n]$
	DISABLE	ENABLE	DISABLE	DISABLE	DISABLE	0	1	$y_k[t+n-1]$
$y_k[t+n-2]$, $y_k[t+n-1]$ AND $y_k[t+n]$ ARE LARGER THAN Th	DISABLE	DISABLE	ENABLE	DISABLE	DISABLE	0	1	$y_k[t+n-1]$
$y_k[t+n-2]$, $y_k[t+n-1]$ AND $y_k[t+n]$ ARE SMALLER THAN Th	DISABLE	DISABLE	DISABLE	ENABLE	DISABLE	0	1	$y_k[t+n-1]$

FIG. 5

CONDITIONS	+MID LEVEL ENABLE	−MID LEVEL ENABLE	+MAX LEVEL ENABLE	−MAX LEVEL ENABLE	ZERO LEVEL ENABLE	SEL1	SEL0	OUTPUT OF MUX
$y_k[t+n-2] * y_k[t+n-1] \leq 0$, $\lvert y_k[t+n-2]\rvert \leq \lvert y_k[t+n-1]\rvert$ AND $y_k[t+n-1] > 0$	ENABLE	DISABLE	DISABLE	DISABLE	DISABLE	0	1	$y_k[t+n-1]$
	DISABLE	ENABLE	DISABLE	DISABLE	DISABLE	1	1	$y_k[t+n-3]$
$y_k[t+n-2] * y_k[t+n-1] \leq 0$, $\lvert y_k[t+n-2]\rvert \leq \lvert y_k[t+n-1]\rvert$ AND $y_k[t+n-1] \leq 0$	ENABLE	DISABLE	DISABLE	DISABLE	DISABLE	0	1	$y_k[t+n-3]$
	DISABLE	ENABLE	DISABLE	DISABLE	DISABLE	1	1	$y_k[t+n-1]$
$y_k[t+n-2] * y_k[t+n-1] \leq 0$, $\lvert y_k[t+n-2]\rvert > \lvert y_k[t+n-1]\rvert$ AND $y_k[t+n-2] > 0$	ENABLE	DISABLE	DISABLE	DISABLE	DISABLE	1	0	$y_k[t+n-2]$
	DISABLE	ENABLE	DISABLE	DISABLE	DISABLE	0	0	$y_k[t+n]$
$y_k[t+n-2] * y_k[t+n-1] \leq 0$, $\lvert y_k[t+n-2]\rvert > \lvert y_k[t+n-1]\rvert$ AND $y_k[t+n-2] \leq 0$	ENABLE	DISABLE	DISABLE	DISABLE	DISABLE	0	0	$y_k[t+n]$
	DISABLE	ENABLE	DISABLE	DISABLE	DISABLE	1	0	$y_k[t+n-2]$
$y_k[t+n-2]$, $y_k[t+n-1]$ AND $y_k[t+n]$ ARE LARGER THAN Th	DISABLE	DISABLE	ENABLE	DISABLE	DISABLE	0	1	$y_k[t+n-1]$
$y_k[t+n-2]$, $y_k[t+n-1]$ AND $y_k[t+n]$ ARE SMALLER THAN Th	DISABLE	DISABLE	DISABLE	ENABLE	DISABLE	0	1	$y_k[t+n-1]$
$y_k[t+n-1] * y_k[t+n] \leq 0$ AND $\lvert y_k[t+n-1]\rvert \leq \lvert y_k[t+n]\rvert$	DISABLE	DISABLE	DISABLE	DISABLE	ENABLE	0	1	$y_k[t+n-1]$
$y_k[t+n-1] * y_k[t+n] \leq 0$ AND $\lvert y_k[t+n-1]\rvert > \lvert y_k[t+n]\rvert$	DISABLE	DISABLE	DISABLE	DISABLE	ENABLE	0	0	$y_k[t+n]$

FIG. 6

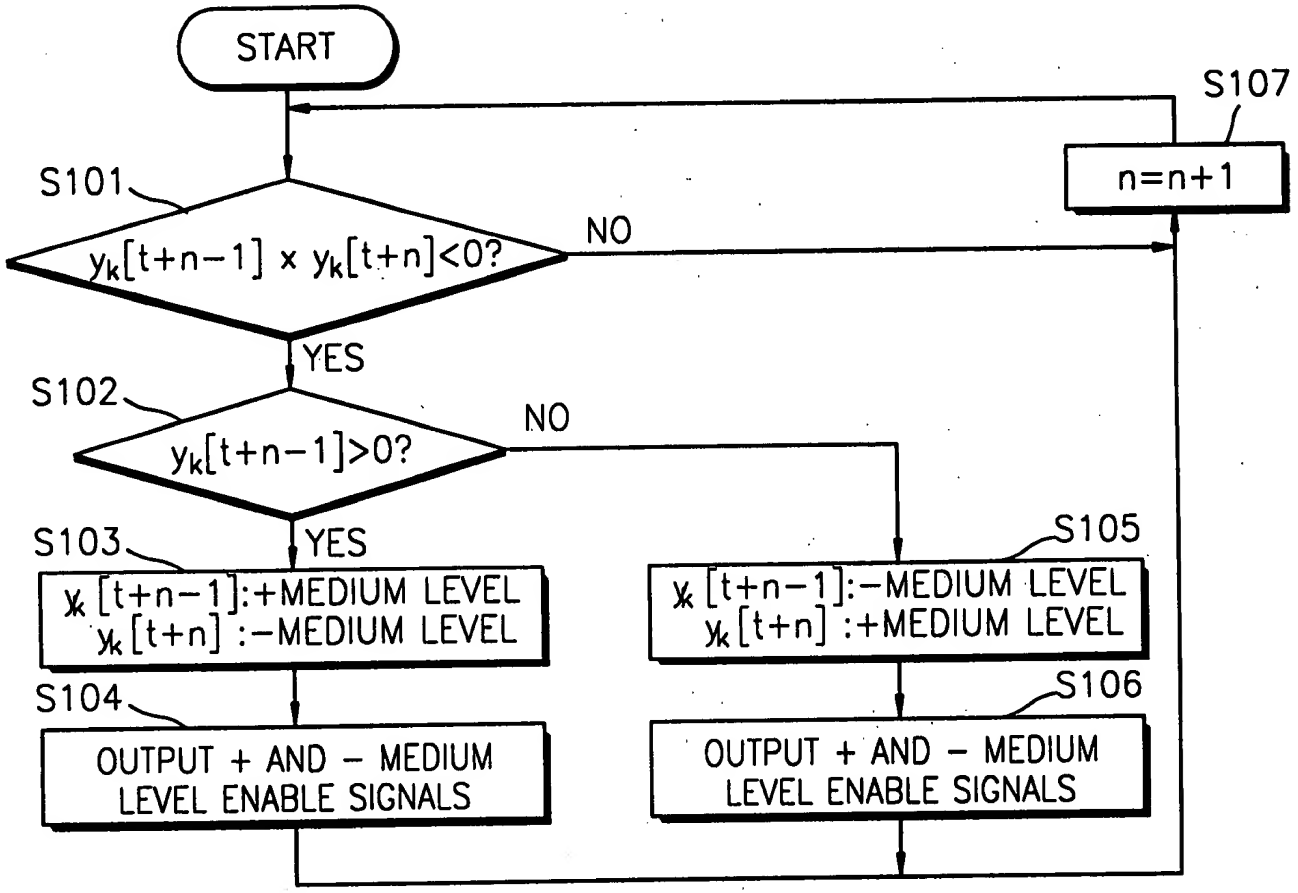

START
S101
$y_k[t+n-1] \times y_k[t+n]<0$?
NO
YES
S102
$y_k[t+n-1]>0$?
NO
YES
S103
$y_k[t+n-1]$:+MEDIUM LEVEL
$y_k[t+n]$:−MEDIUM LEVEL
S104
OUTPUT + AND − MEDIUM LEVEL ENABLE SIGNALS
S105
$y_k[t+n-1]$:−MEDIUM LEVEL
$y_k[t+n]$:+MEDIUM LEVEL
S106
OUTPUT + AND − MEDIUM LEVEL ENABLE SIGNALS
S107
n=n+1

FIG. 7

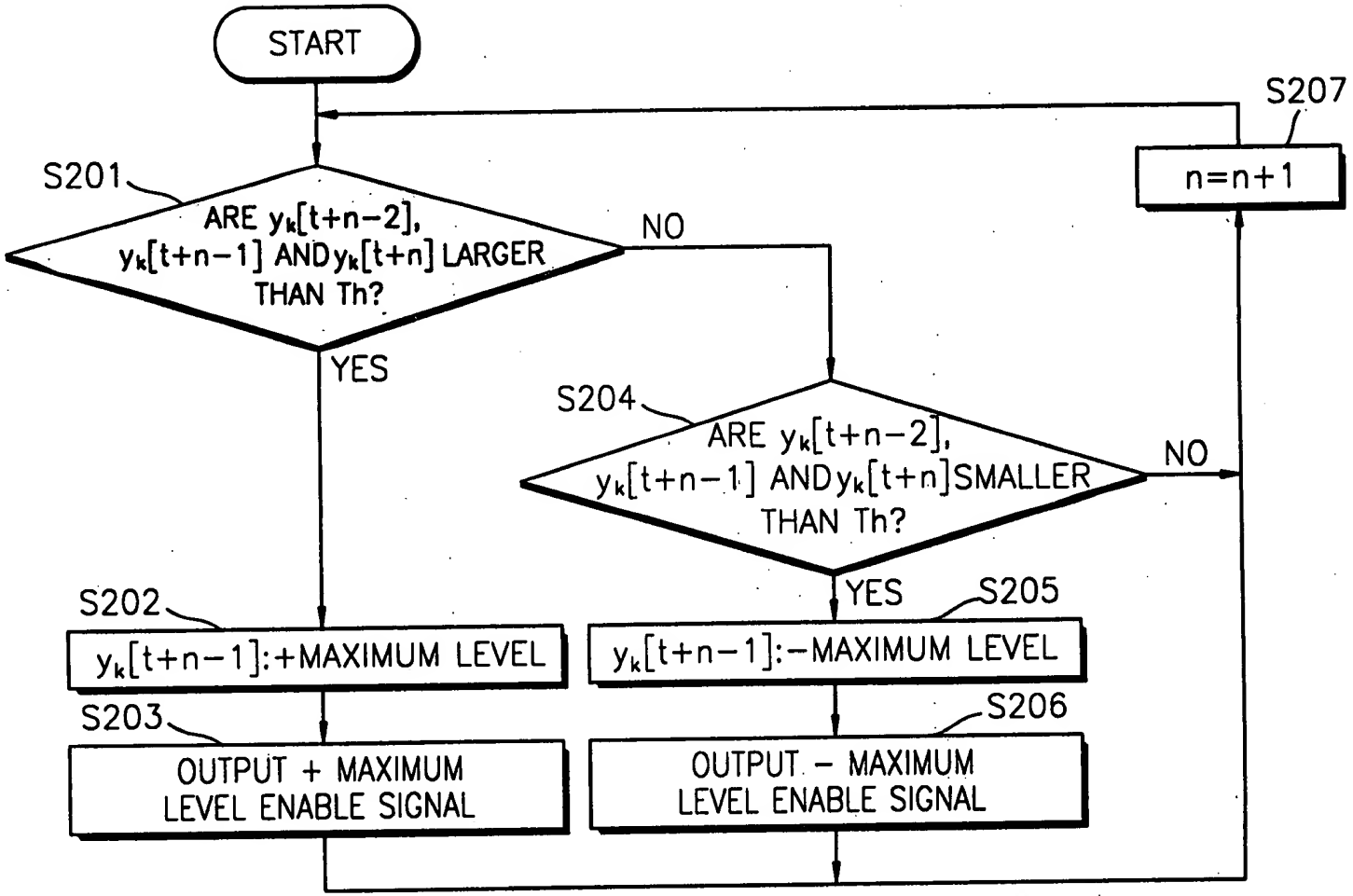

START
S201
ARE $y_k[t+n-2]$, $y_k[t+n-1]$ AND $y_k[t+n]$ LARGER THAN Th?
NO
YES
S204
ARE $y_k[t+n-2]$, $y_k[t+n-1]$ AND $y_k[t+n]$ SMALLER THAN Th?
NO
YES
S202
$y_k[t+n-1]$:+MAXIMUM LEVEL
S203
OUTPUT + MAXIMUM LEVEL ENABLE SIGNAL
S205
$y_k[t+n-1]$:−MAXIMUM LEVEL
S206
OUTPUT − MAXIMUM LEVEL ENABLE SIGNAL
S207
n=n+1

FIG. 8

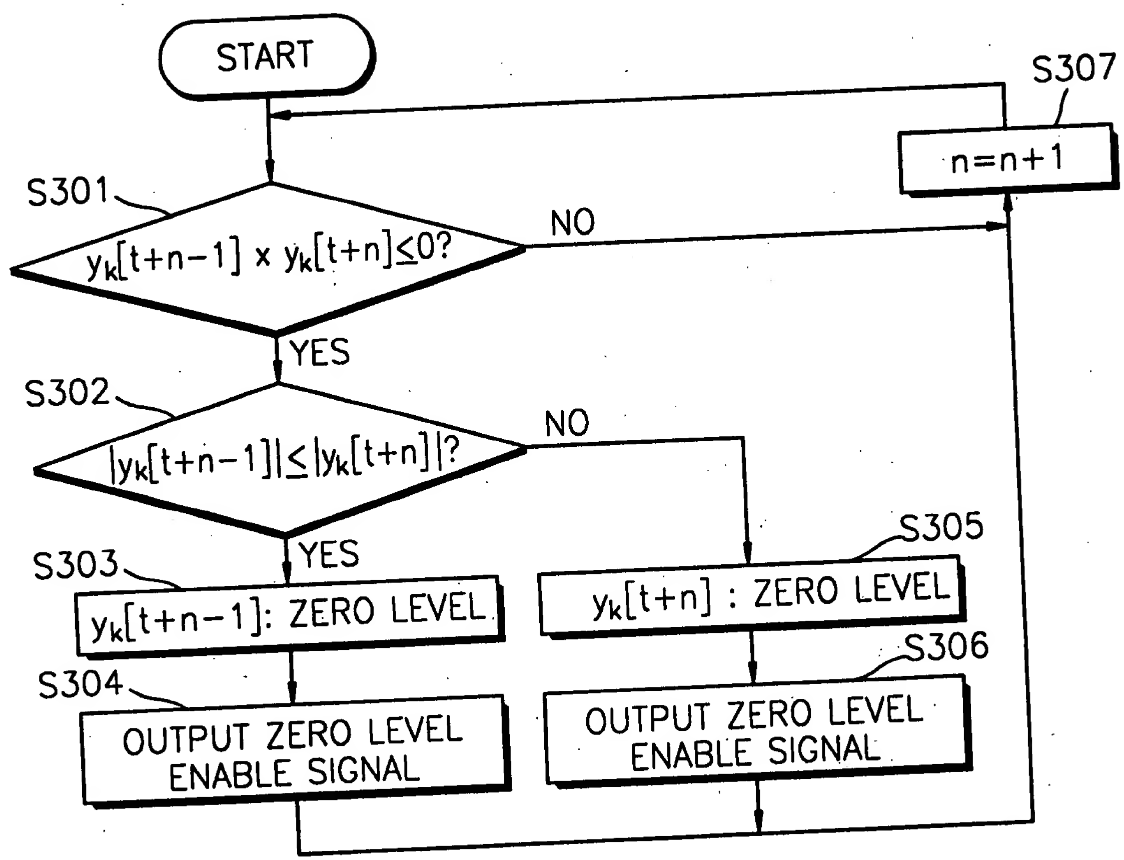

START
S301
$y_k[t+n-1] \times y_k[t+n] \leq 0$?
NO
YES
S302
$|y_k[t+n-1]| \leq |y_k[t+n]|$?
NO
YES
S303
$y_k[t+n-1]$: ZERO LEVEL
S304
OUTPUT ZERO LEVEL ENABLE SIGNAL
S305
$y_k[t+n]$: ZERO LEVEL
S306
OUTPUT ZERO LEVEL ENABLE SIGNAL
S307
n=n+1

FIG. 9

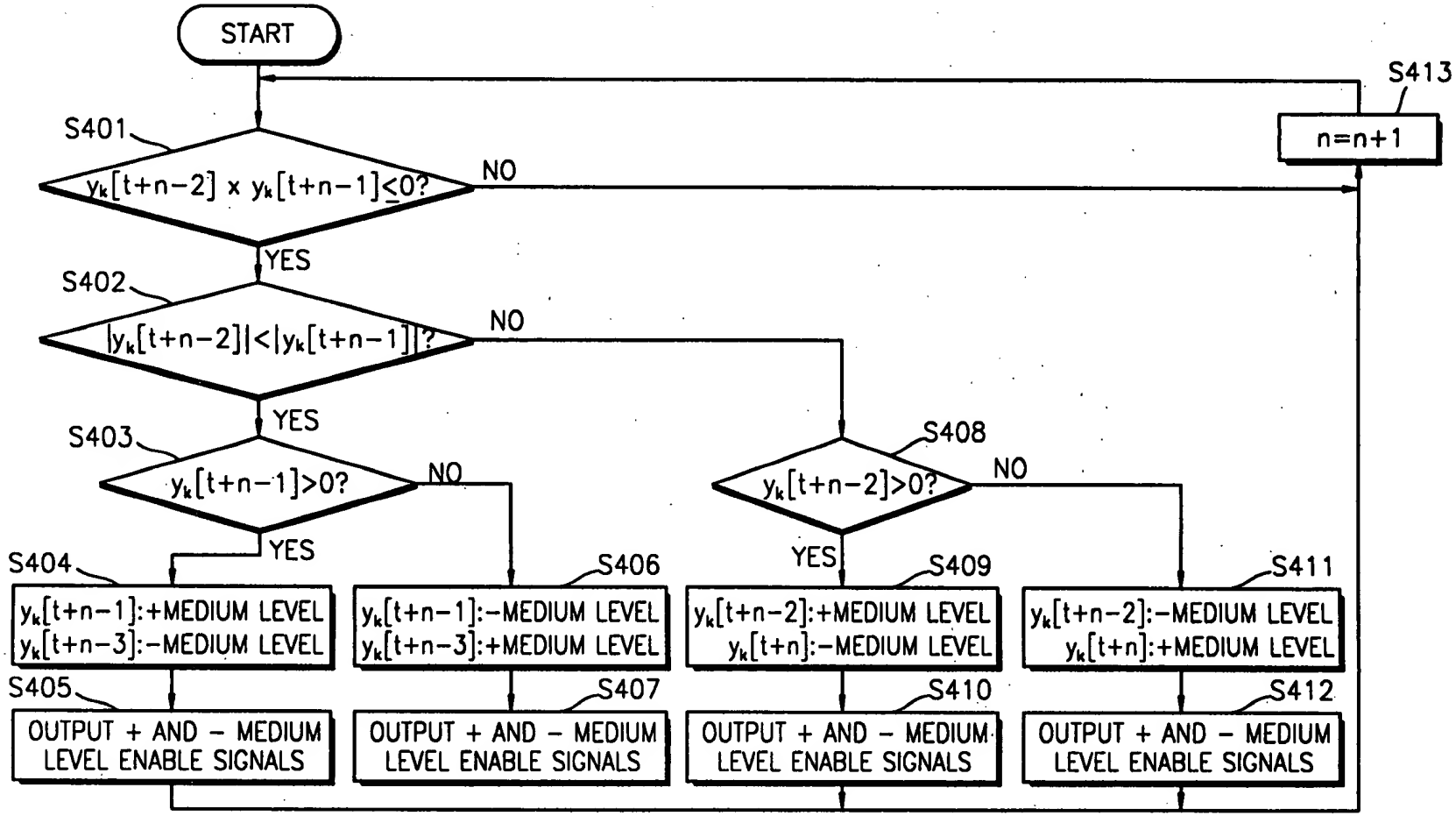

START
S401
$y_k[t+n-2] \times y_k[t+n-1] \leq 0$?
NO
YES
S402
$|y_k[t+n-2]| < |y_k[t+n-1]|$?
NO
YES
S403
$y_k[t+n-1] > 0$?
NO
YES
S404
$y_k[t+n-1]$:+MEDIUM LEVEL
$y_k[t+n-3]$:−MEDIUM LEVEL
S405
OUTPUT + AND − MEDIUM LEVEL ENABLE SIGNALS
S406
$y_k[t+n-1]$:−MEDIUM LEVEL
$y_k[t+n-3]$:+MEDIUM LEVEL
S407
OUTPUT + AND − MEDIUM LEVEL ENABLE SIGNALS
S408
$y_k[t+n-2] > 0$?
NO
YES
S409
$y_k[t+n-2]$:+MEDIUM LEVEL
$y_k[t+n]$:−MEDIUM LEVEL
S410
OUTPUT + AND − MEDIUM LEVEL ENABLE SIGNALS
S411
$y_k[t+n-2]$:−MEDIUM LEVEL
$y_k[t+n]$:+MEDIUM LEVEL
S412
OUTPUT + AND − MEDIUM LEVEL ENABLE SIGNALS
S413
n=n+1

FIG. 10

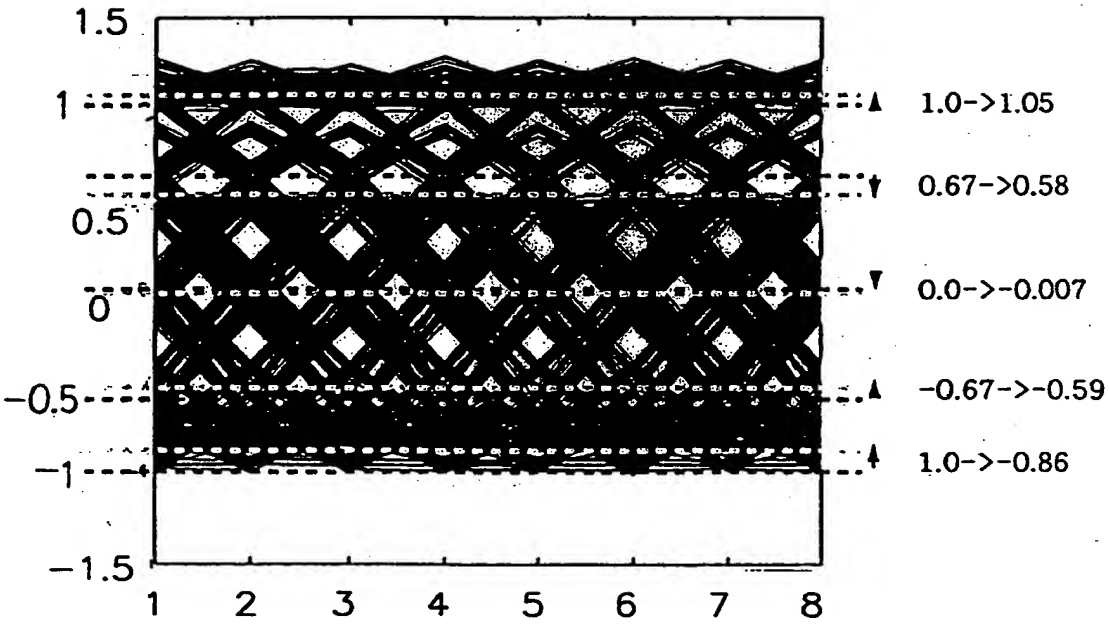

1.5
1
0.5
0
−0.5
−1
−1.5
1 2 3 4 5 6 7 8
1.0->1.05
0.67->0.58
0.0->-0.007
-0.67->-0.59
1.0->-0.86

FIG. 11

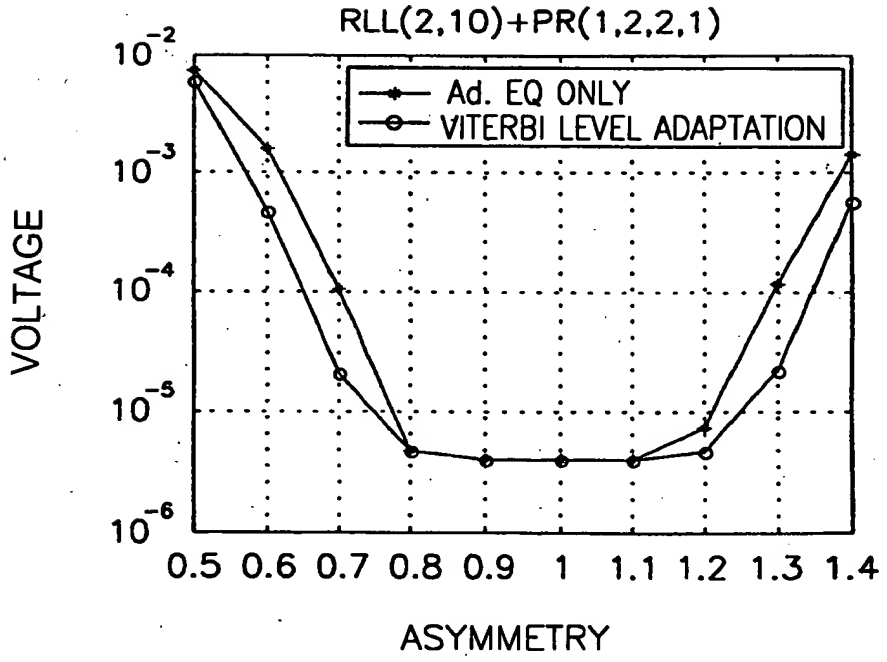
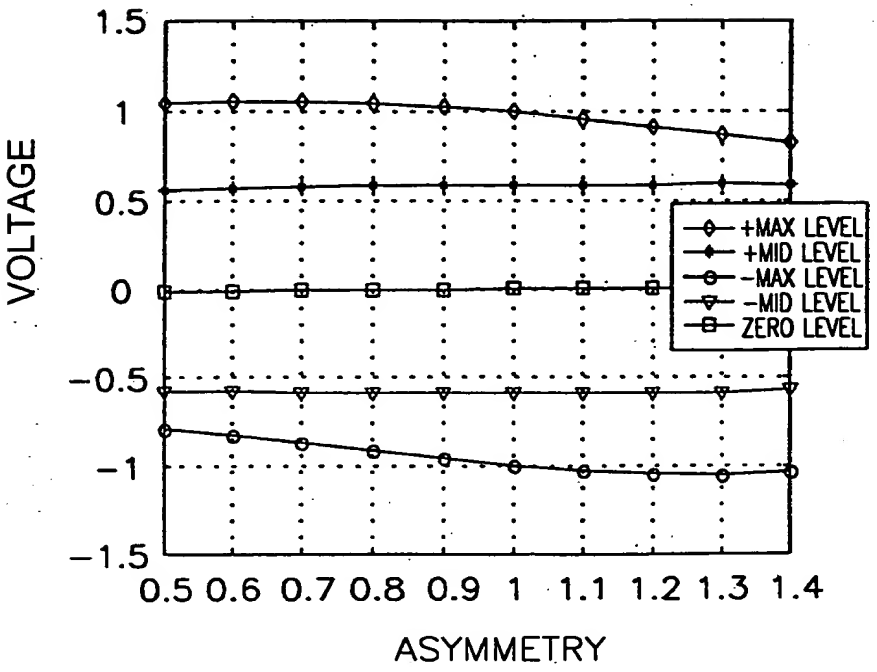

RLL(2,10)+PR(1,2,2,1)
Ad. EQ ONLY
VITERBI LEVEL ADAPTATION
VOLTAGE
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
0.5 0.6 0.7 0.8 0.9 1 1.1 1.2 1.3 1.4
ASYMMETRY

FIG. 12


1.5
1
0.5
0
−0.5
−1
−1.5
VOLTAGE
0.5 0.6 0.7 0.8 0.9 1 1.1 1.2 1.3 1.4
ASYMMETRY
+MAX LEVEL
+MID LEVEL
−MAX LEVEL
−MID LEVEL
ZERO LEVEL